

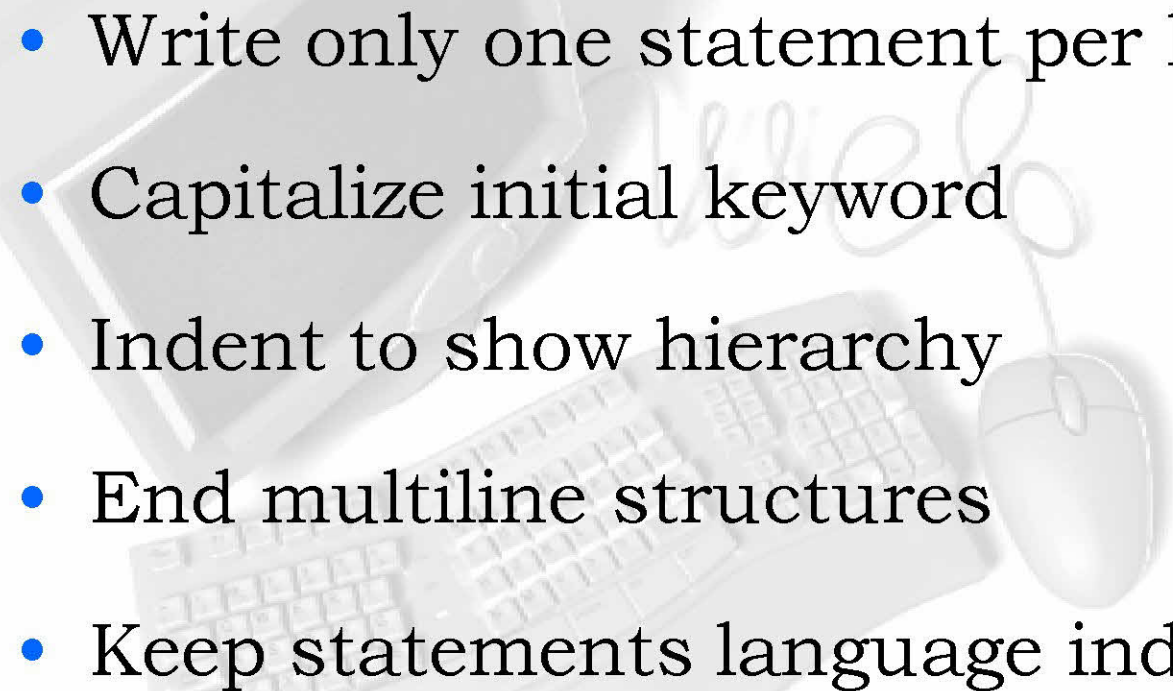


Pseudocode

An Introduction

MGM1311

Rules for Pseudocode

- Write only one statement per line
 - Capitalize initial keyword
 - Indent to show hierarchy
 - End multiline structures
 - Keep statements language independent
- 

One Statement Per Line

- ✓ Each statement in pseudocode should express just one action for the computer.

Task List

Calculate and grossPay

grossPay = hours worked * rate of pay

Pseudocode

READ name, hoursWorked, payRate

gross = hoursWorked * payRate

WRITE name, hoursWorked, gross

Capitalize Initial Keyword

Example words:

- ☐ READ
- ☐ WRITE
- ☐ IF..... THEN....ELSE..... ENDIF
- ☐ WHILE..... ENDWHILE
- ☐ REPEAT..... UNTIL
- ☐ FOR..... DO..... NEXT
- ☐ OPEN / CLOSE
- ☐ SELECT..... CASE.....

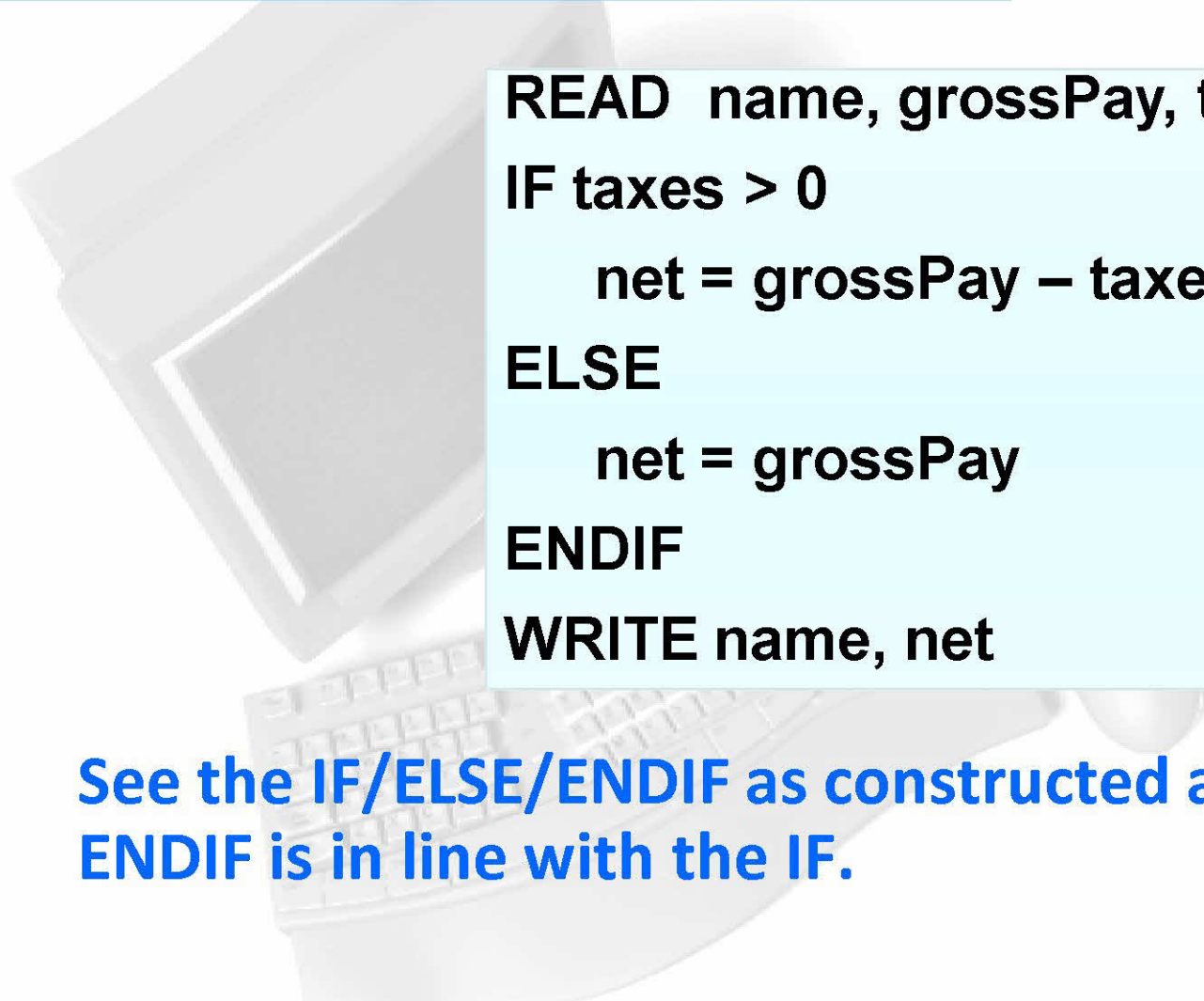
Indent to Show Hierarchy

Each design structure uses a particular indentation pattern

- ❑ **Sequence** : Keep statements in sequence all starting in the same column
- ❑ **Selection** : Indent statements that fall inside selection structure
- ❑ **Loop** : Indent statements that fall inside the loop

```
READ name, grossPay, taxes
IF taxes > 0
    net = grossPay – taxes
ELSE
    net = grossPay
ENDIF
WRITE name, net
```

End Multiline Structures



```
READ name, grossPay, taxes
IF taxes > 0
    net = grossPay – taxes
ELSE
    net = grossPay
ENDIF
WRITE name, net
```

See the IF/ELSE/ENDIF as constructed above, the
ENDIF is in line with the IF.

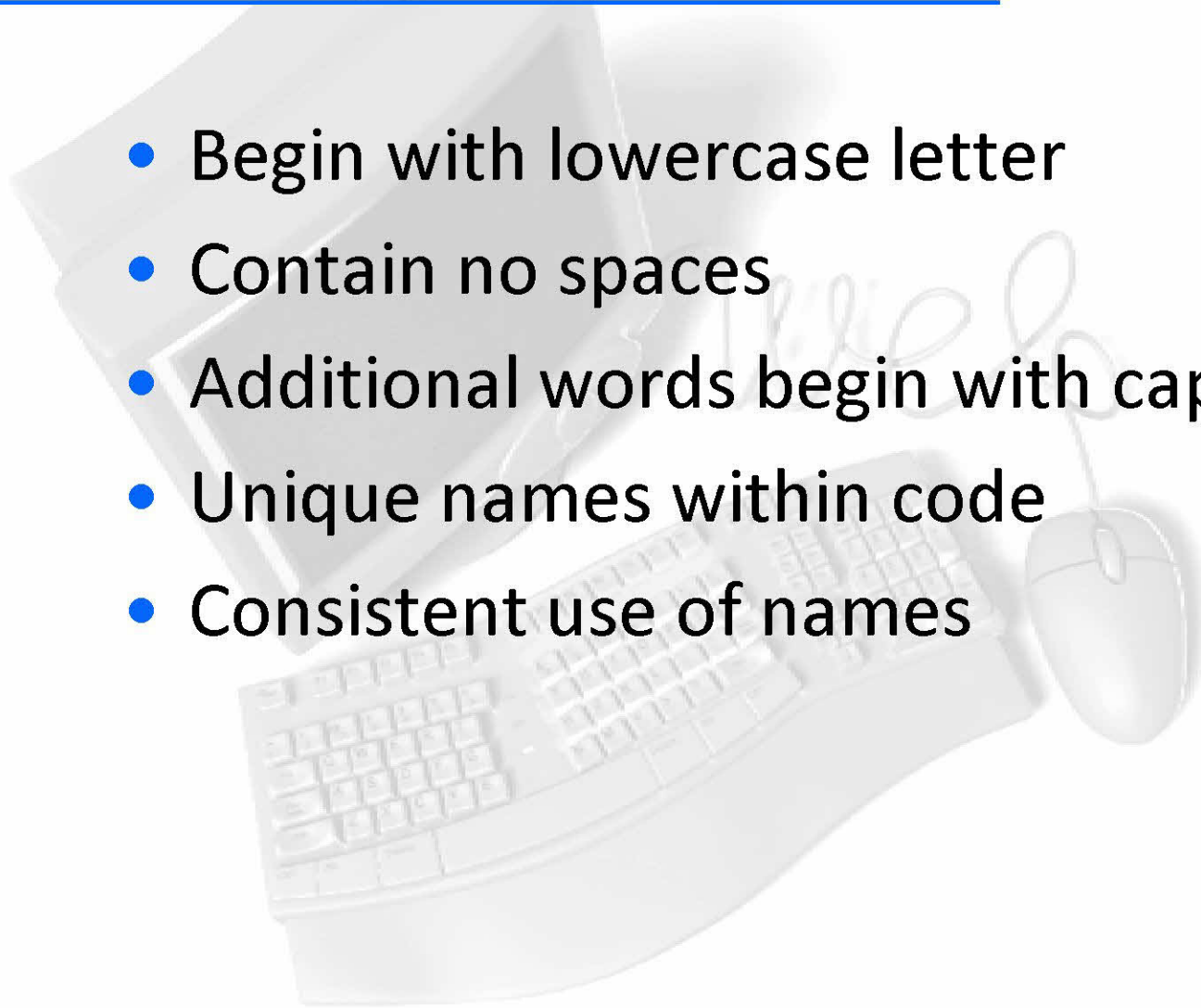
The same applies for WHILE/ENDWHILE etc...

Language Independence

- ☐ Write in whatever language you are most comfortable with, in the long run you will save time.
- ☐ Remember you are describing a logic plan to develop a program, you are not programming!

Rules for Variable Names

- Begin with lowercase letter
- Contain no spaces
- Additional words begin with capital
- Unique names within code
- Consistent use of names



Working with Fields

Calculations

+	add
-	subtract
*	multiply
/	divide
** or ^	exponentiation
()	grouping

Selection

>	greater than
<	less than
=	equal to
>=	greater than or equal to
<=	less than or equal to
<>	not equal to